Effectiveness of Psychosocial Treatments for Youth

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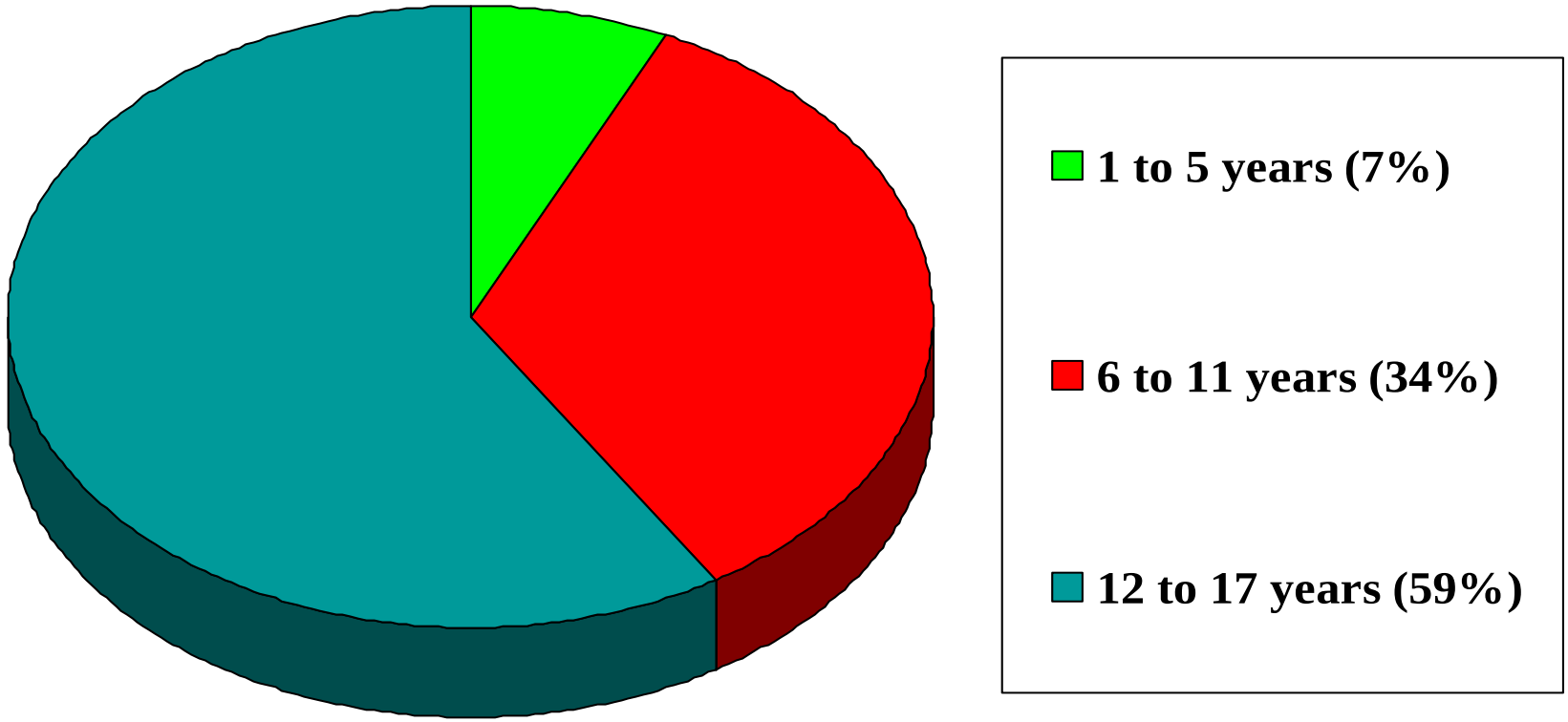
Youth Mental Health Care in America

- 6% of American youth per year
- Annual cost: $11.75 billion
- Most of the cost is for psychosocial treatment, psychotherapy

  – [From Sturm et al. (2000)]

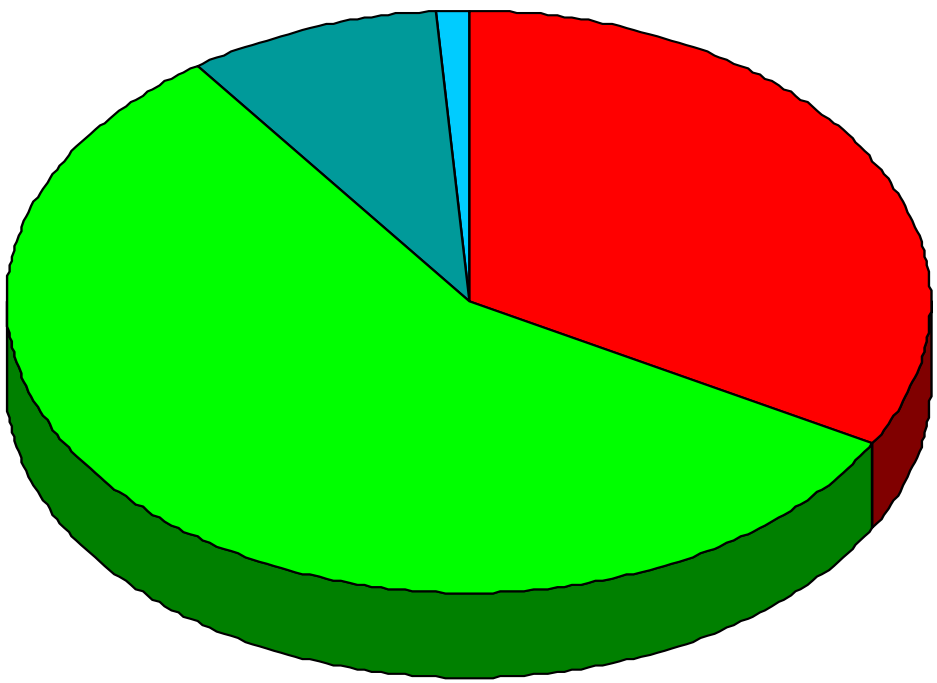
Total Child Mental Health Costs by Age Group



Total Expenditures: $11.75 billion

(Sturm et al., 2000)

Total Child Mental Health Costs by Service Type



- inpatient (33%)
- outpatient (57%)
- medications (9%)
- other (1%)

Total Expenditures: $11.75 billion

(Sturm et al., 2000)

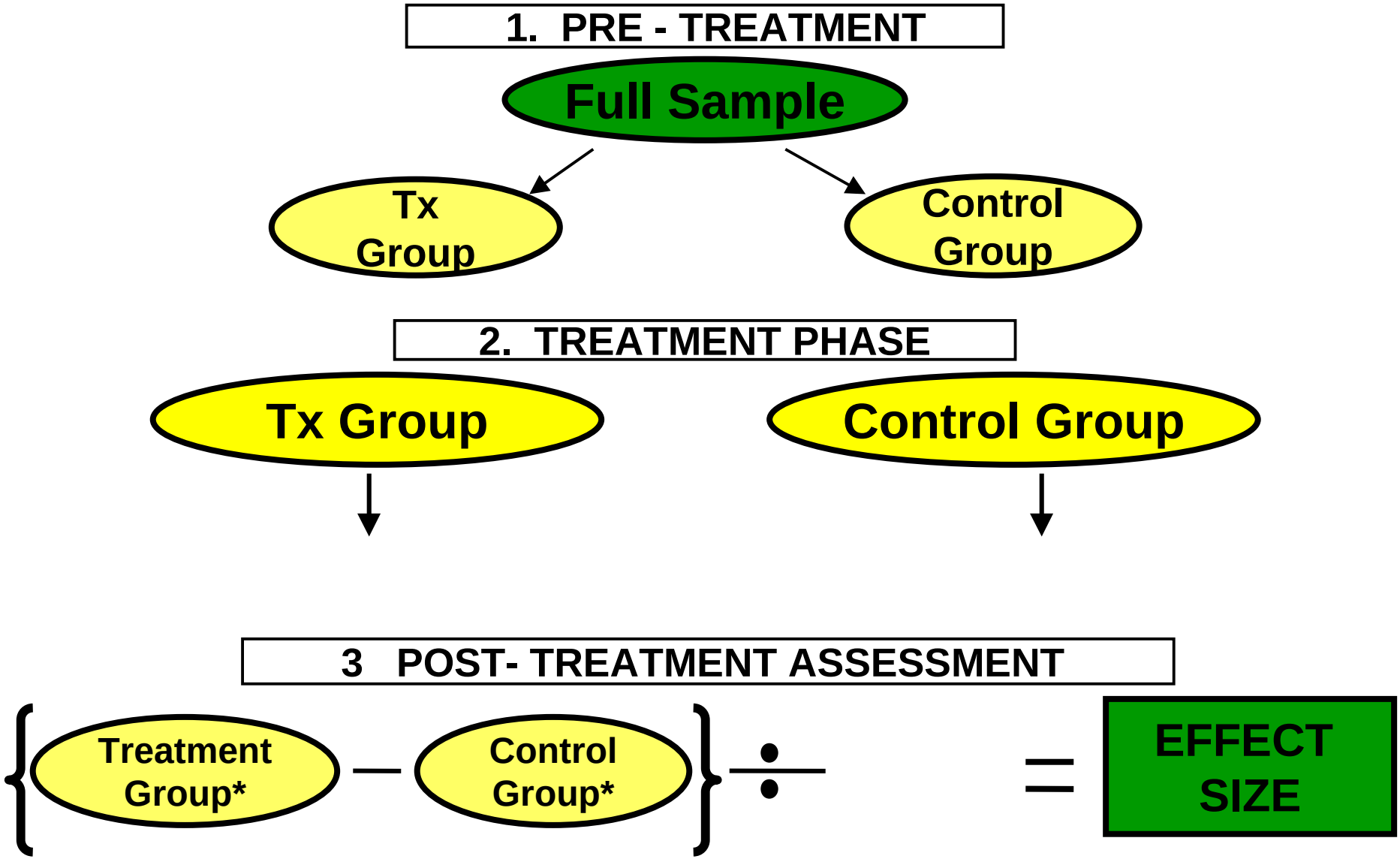
CHILD THERAPY: KEY FEATURES

1. Template of Normal Development
2. Perception of Dysfunction
3. Nature of Referral
4. Source of Therapy Goals
5. Who is “client”, “patient”
6. Motivation for treatment
7. Locus of psychopathology
8. Dependence on others
9. Freedom to choose settings
10. Who to include in treatment

MOST COMMON TREATMENT TARGETS

1. **Aggression, Delinquency**
2. **Attention-Deficit /Hyperactivity (ADD/ADHD)**
3. **Depression**
4. **Irrational Fears, Anxiety Disorders**

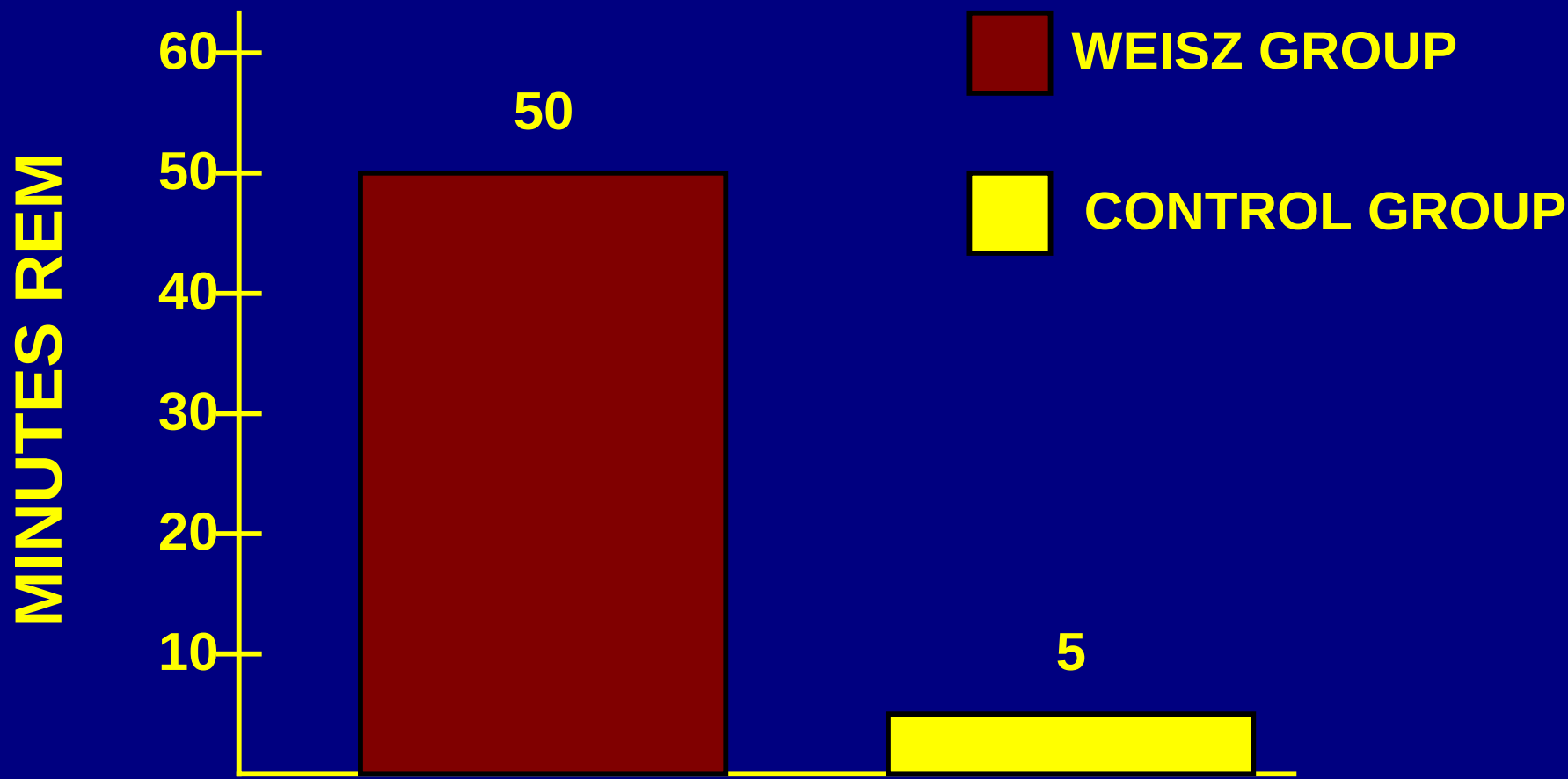
Treatment Study & Effect Size



ESTIMATING A TREATMENT EFFECT

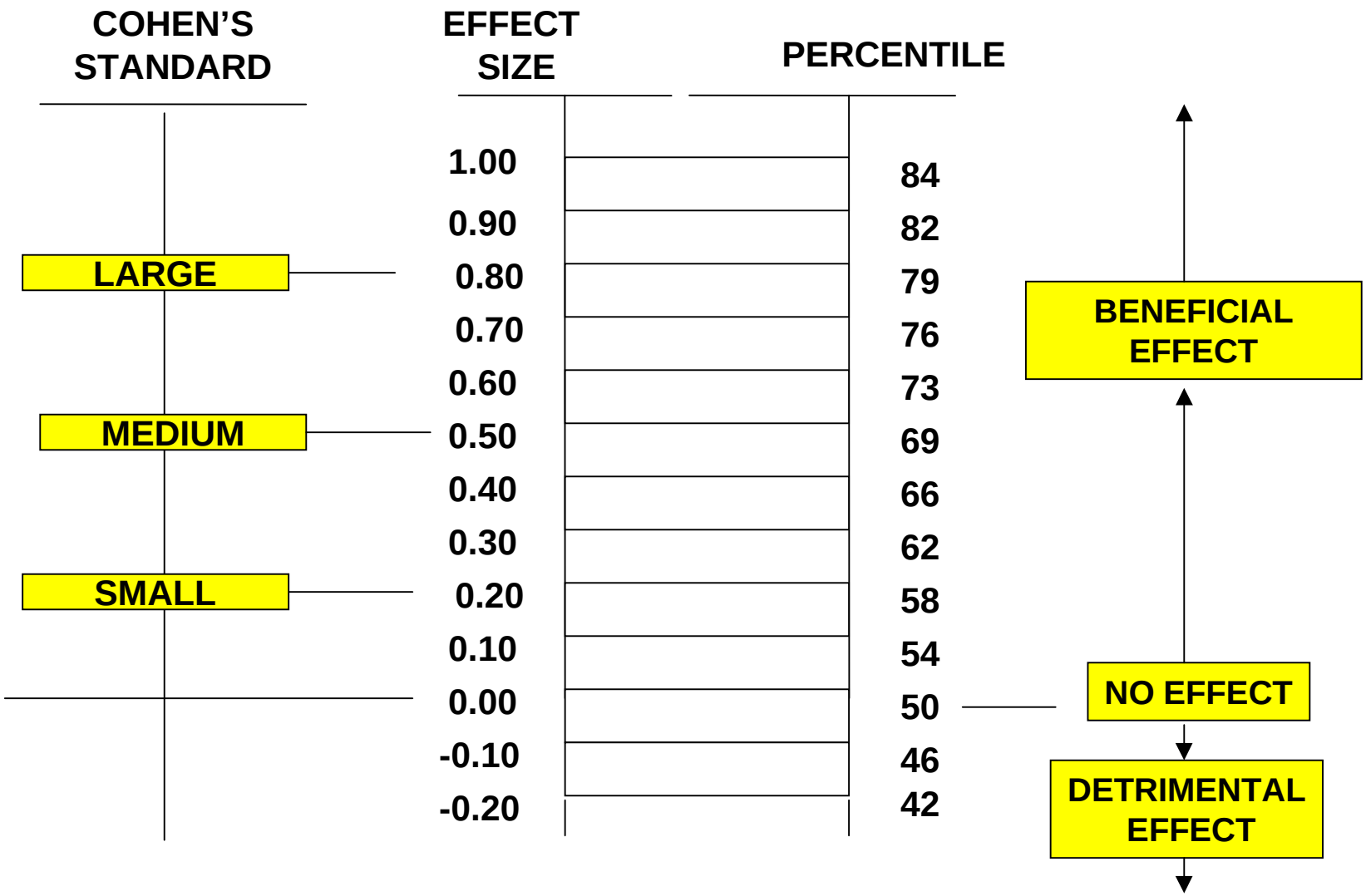
$$\frac{m_{\text{TREAT. GROUP}} - m_{\text{CONTROL GROUP}}}{SD_{\text{OUTCOME MEASURE}}} = \textbf{EFFECT SIZE}$$

AUDIENCE REM SLEEP: WEISZ GROUP VS. CONTROLS



$$ES = \frac{50 - 5}{(SD = 15)} = 3.0$$

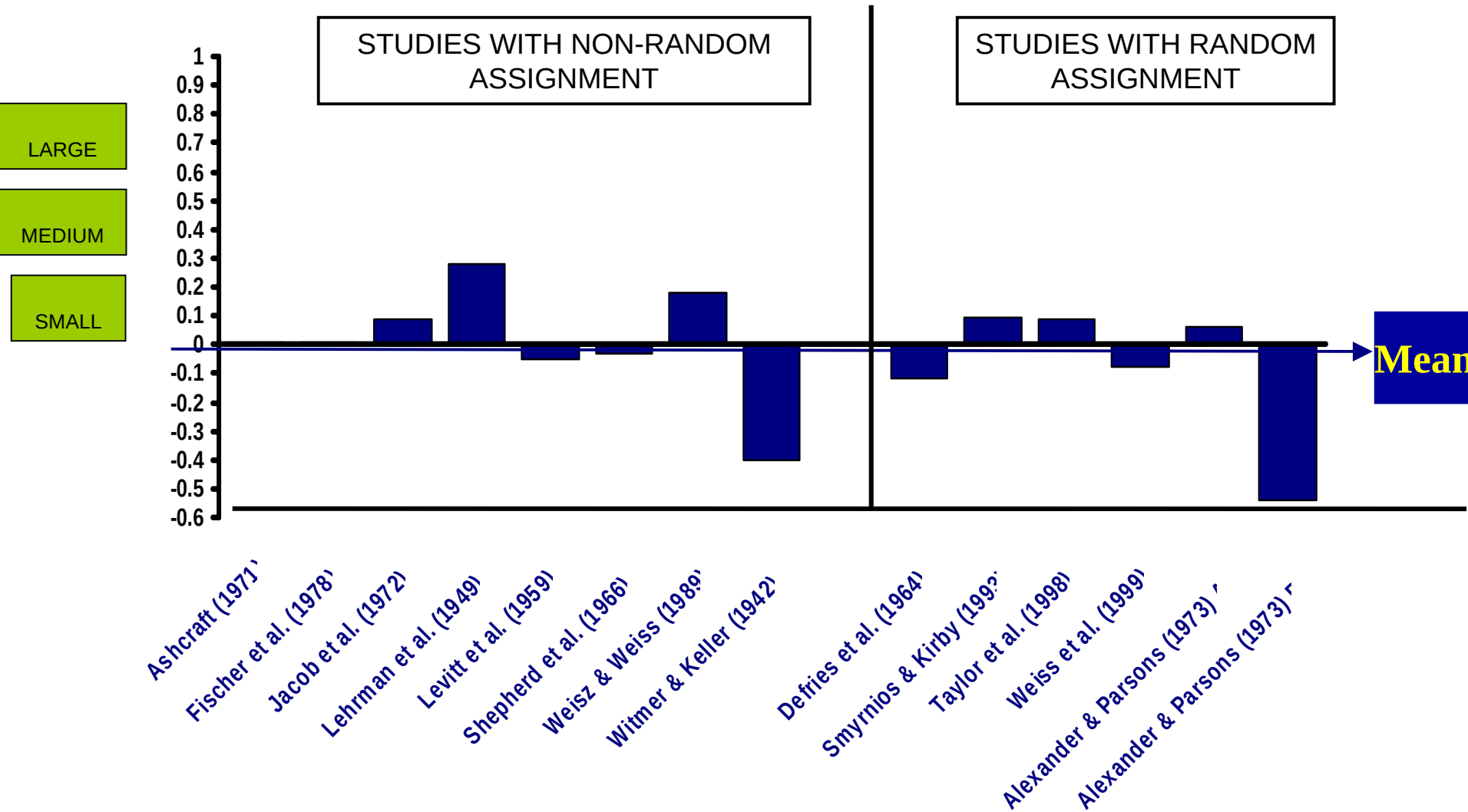
INTERPRETING EFFECT SIZE STATISTICS



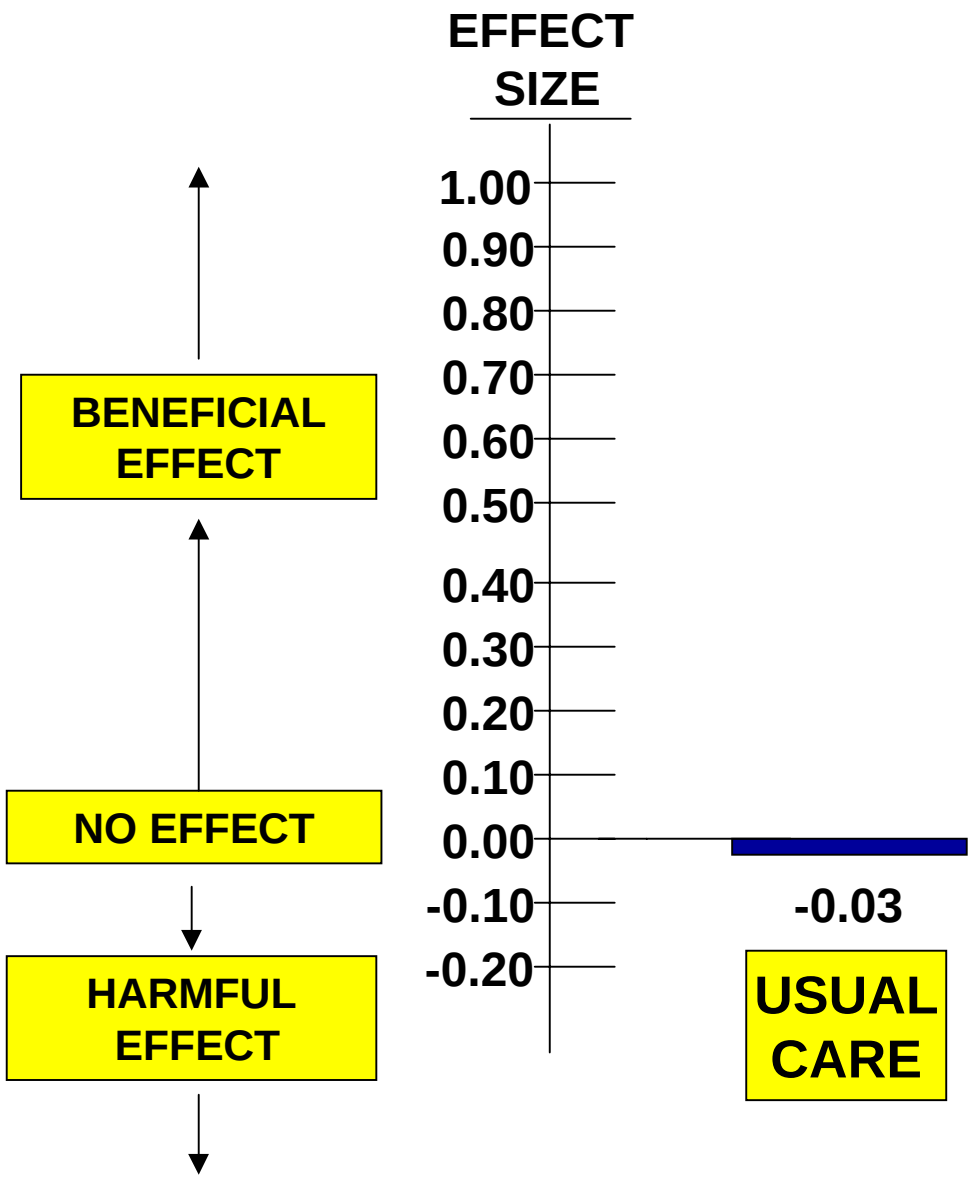
Clinically-Derived Treatment (CDT, UC)

1. Talk or play with child.
2. Talk with parents.
3. Listen reflectively, be empathic.
4. Build a warm relationship.
5. Be flexible and spontaneous.
6. Be supportive and encouraging.
7. Be eclectic, use multiple methods.

CLINICALLY-DERIVED TREATMENT STUDIES: EFFECT SIZES



EFFECT SIZE FOR CLINICALLY-DERIVED TREATMENT

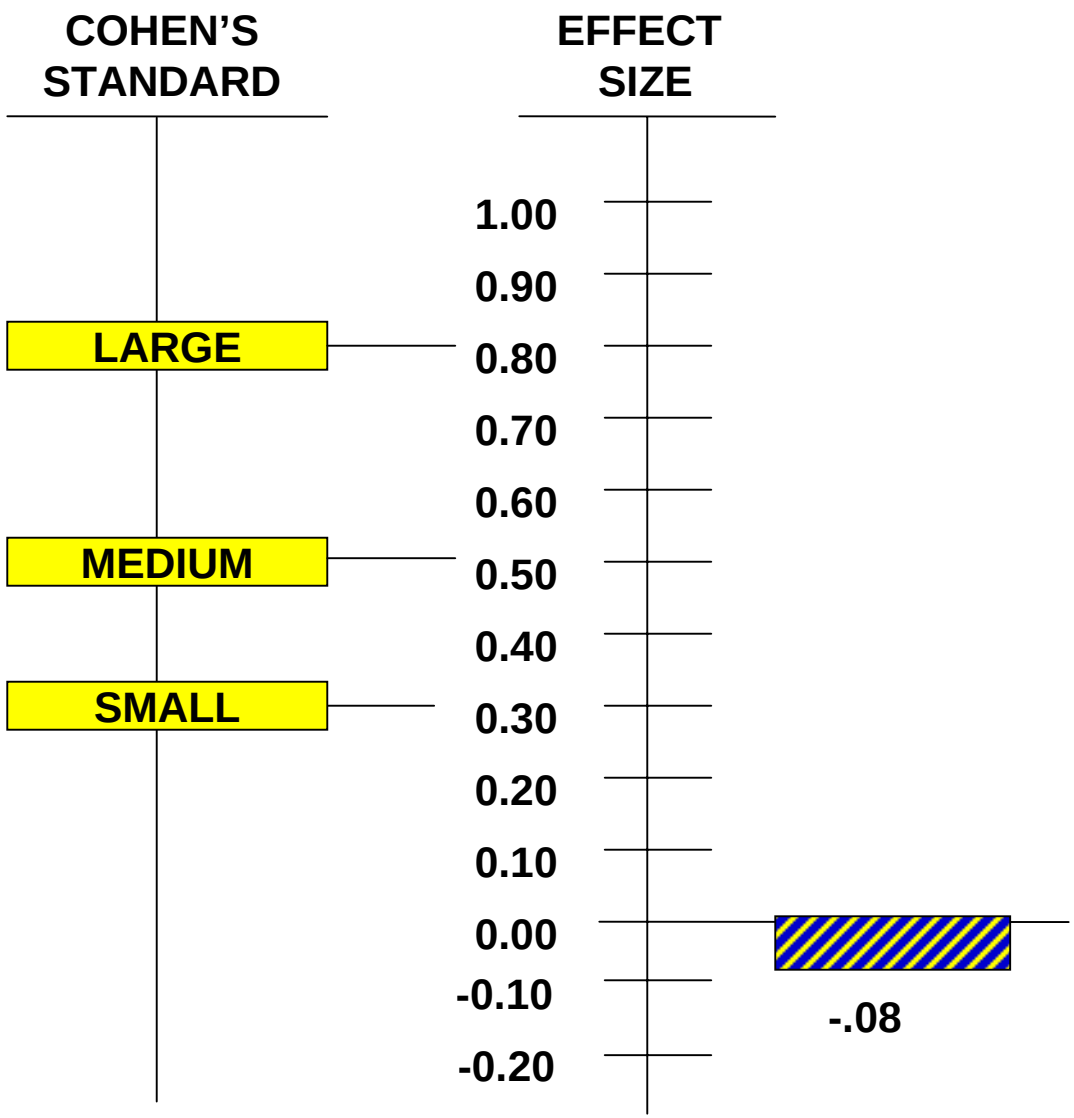


CDT STUDY:TRADITIONAL CHILD PSYCHOTHERAPY

Weiss, Catron, Harris, & Phung (1999)

* 160 Children, mean age 10 years
* Referred by school staff & standardized assessment
* 7 Community child therapists, hired by CMHC, 6 yrs. experience
* No session limits, M = 60 individual
  18 parent
  13 school consult
* Control group: individual tutoring, M = 53
* Random assignment
* Results: ns
  ES = -.08

EFFECT SIZE IN SAMPLE CDT STUDY:Traditional Child Therapy (Weisz et al., 1999)



DOSE-EFFECT RELATIONSHIP IN CDT*

* 567 outpatients, ages 5-17

* MEAN SESSIONS: 13

* ANALYSES:
    1. Improved vs. unimproved
    2. Normative comparisons
    3. Continuous outcome scores
    4. Longitudinal growth modeling (HLM)

* CONCLUSION:

NO DOSE-EFFECT RELATIONSHIP

* Salzer, Bickman, & Lambert (1999), JCCP, 67, 228-238.

CONVENTIONAL CLINICALLY-DERIVED TREATMENTS ORGANIZED INTO SYSTEMS OF CARE

WILLIE M. [$25 MILLION/ YR.]

*Functional Outcomes (Arrests)

FT. BRAGG [$11 MILLION/ YR.]

*Clinical Outcomes (e.g. Probs, Diagnoses)

*Functional Outcomes (e.g. Schools)

STARKE COUNTY, OHIO

*Clinical Outcomes (e.g. Probs, Diagnoses)

*Functional Outcomes (e.g. Schools)

FINDINGS

1. SERVICE USE . …….EXP > CONTROL

2. COST ……EXP > CONTROL

3. CLINICAL OUTCOMES …… N.S.

4. FUNCTIONAL OUTCOMES ……... N.S.

EVIDENCE-BASED TREATMENTS

1. **Work with child/parent to identify target problems, set goals**

2. **Measure progress towards goals.**

3. **Build specific coping skills through practice.**

4. **Give specific behavioral assignments, homework.**

5. **Structured, behavioral, goal-oriented procedures.** **[documented, often in a manual]**

FOUR BROAD-BASED META-ANALYSES: DETAILS

	CASEY & BERMAN (1985)	WEISZ ET AL. (1987)	KAZDIN ET AL. (1990)	WEISZ ET AL. (1995)
NO. STUDIES.....	64	105	64/41	150
AGE RANGE.....	3-12	4-18	5-18	2-18
STUDY YEARS.....	1952-83	1958-84	1970-88	1967-93
MEAN % MALES..	60%	66%	67%	62%

REPRESENTATIVE TREATED PROBLEMS

EXTERNALIZING/UNDERCONTROLLED

- AGRESSION
- NONCOMPLIANCE
- DELINQUENCY

INTERNALIZING/OVERCONTROLLED

- PHOBIAS/ANXIETY
- DEPRESSION
- SOMATIC PROBLEMS

OTHER PROBLEMS

- COGNITIVE SKILL DEFICITS
- LOW SOCIOMETRIC/PEER REJECT

REPRESENTATIVE TREATMENTS

- BEHAVIORAL THERAPIES
  - OPERANT
    - PHYSICAL REINFORCERS
    - SOCIAL VERBAL REINFORCERS
  - RESPONDENT
    - SYSTEMATIC DESENSITIZATION
    - BIOFEEDBACK
  - MODELING
    - LIVE PEER MODEL
    - FILM/VIDEO PEER MODEL
  - COGNITIVE/COGNITIVE BEHAVIORAL
  - PARENT
- NONBEHAVIORAL THERAPIES
  - CLIENT-CENTERED/NONDIRECTIVE
  - INSIGHT ORIENTED

REPRESENTATIVE OUTCOME MEASURES

1. PARENT RATINGS (e.g. CBCL, SPECIF)
2. CHILD REPORTS (e.g. YSR, SPECIF)
3. TEACHER REPORTS (e.g. TRF)
4. TRAINED OBSERVER RATINGS
5. PEER OBSERVER RATINGS
6. PEER SOCIOMETRIC CHOICES
7. CHILD PERFORMANCE/TASK/TEST
8. DIAGNOSTIC INTERVIEW - P/C
9. GLOBAL ASSESSMENT RATINGS/MH

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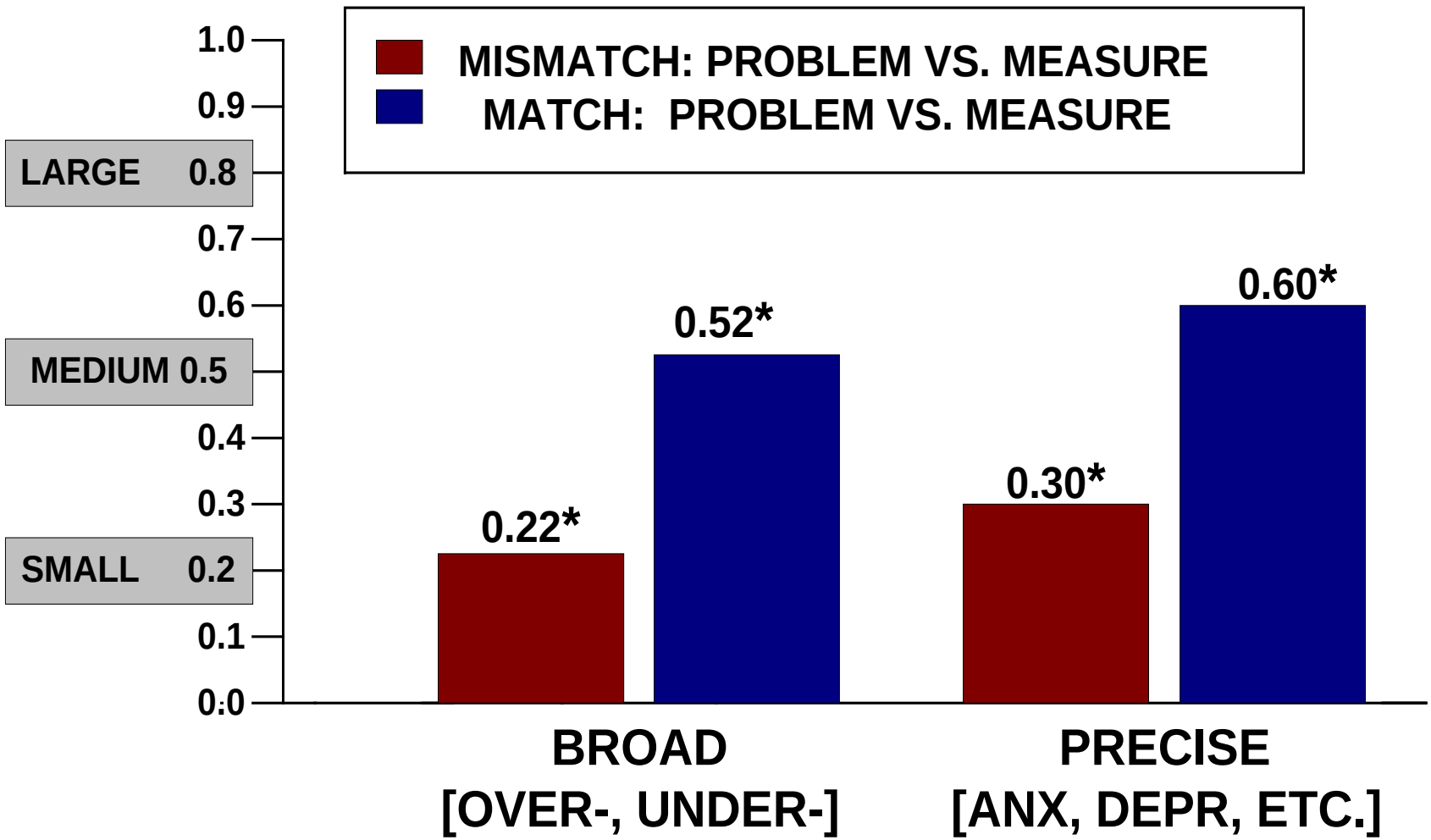
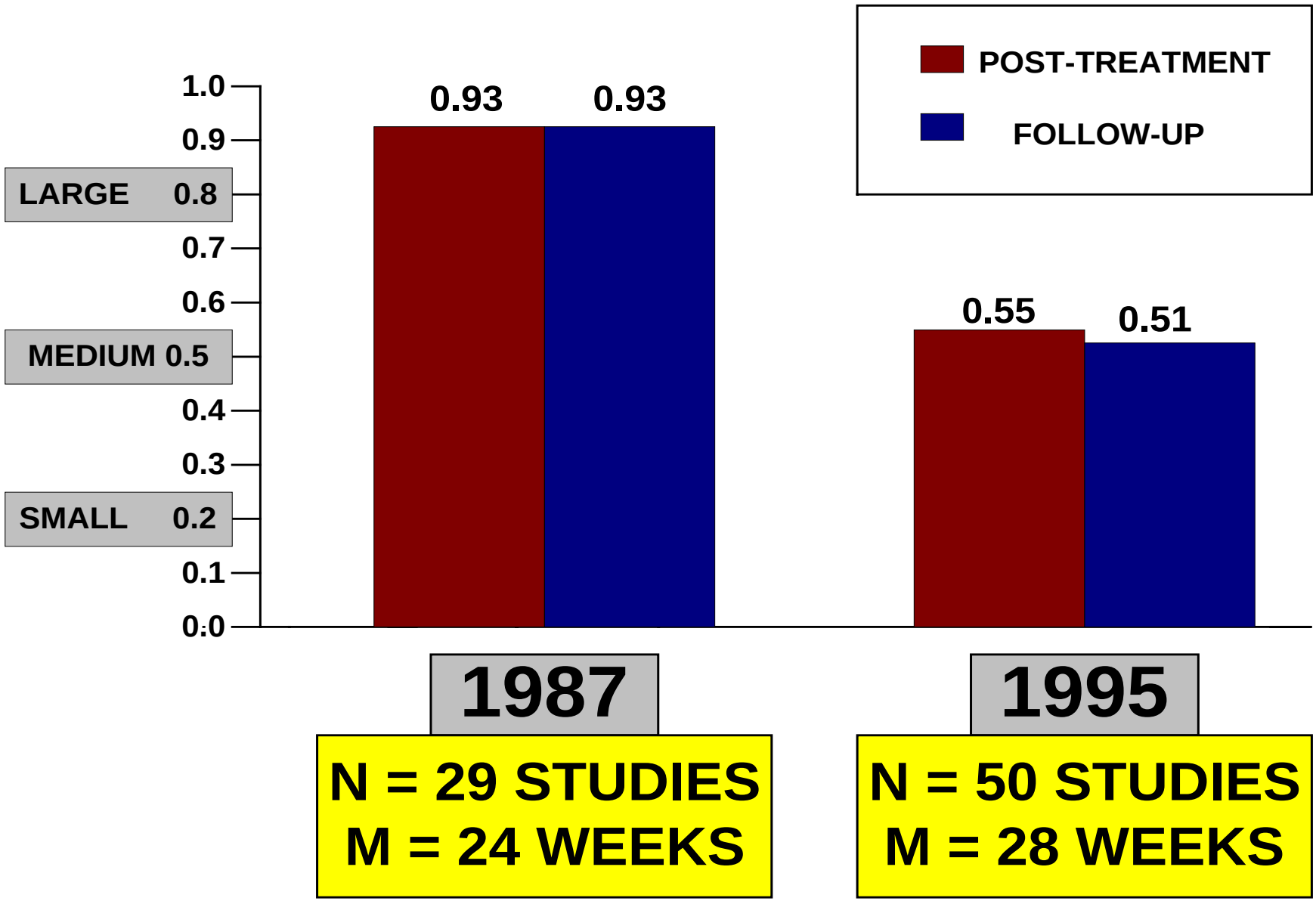
SPECIFICITY OF TREATMENT EFFECTS



* WLS MEANS

DO TREATMENT EFFECTS LAST?



N = 29 STUDIES
M = 24 WEEKS

N = 50 STUDIES
M = 28 WEEKS

EFFECT OF VARIOUS TREATMENTS: MED & PSY

IV	DV	r	r^2
ASPIRIN	HEART ATTACKS	.03	.00
CYCLOSPORINE	DEATH	.15	.02
CHOLESTEROL-LOWERING REGIMEN	CORONARY STATUS	.22	.05
AZT	DEATH	.23	.05
PSYCHOTHERAPY	IMPROVEMENT	.39	.15

CHILD & ADOLESCENT FINDINGS IN A NUTSHELL

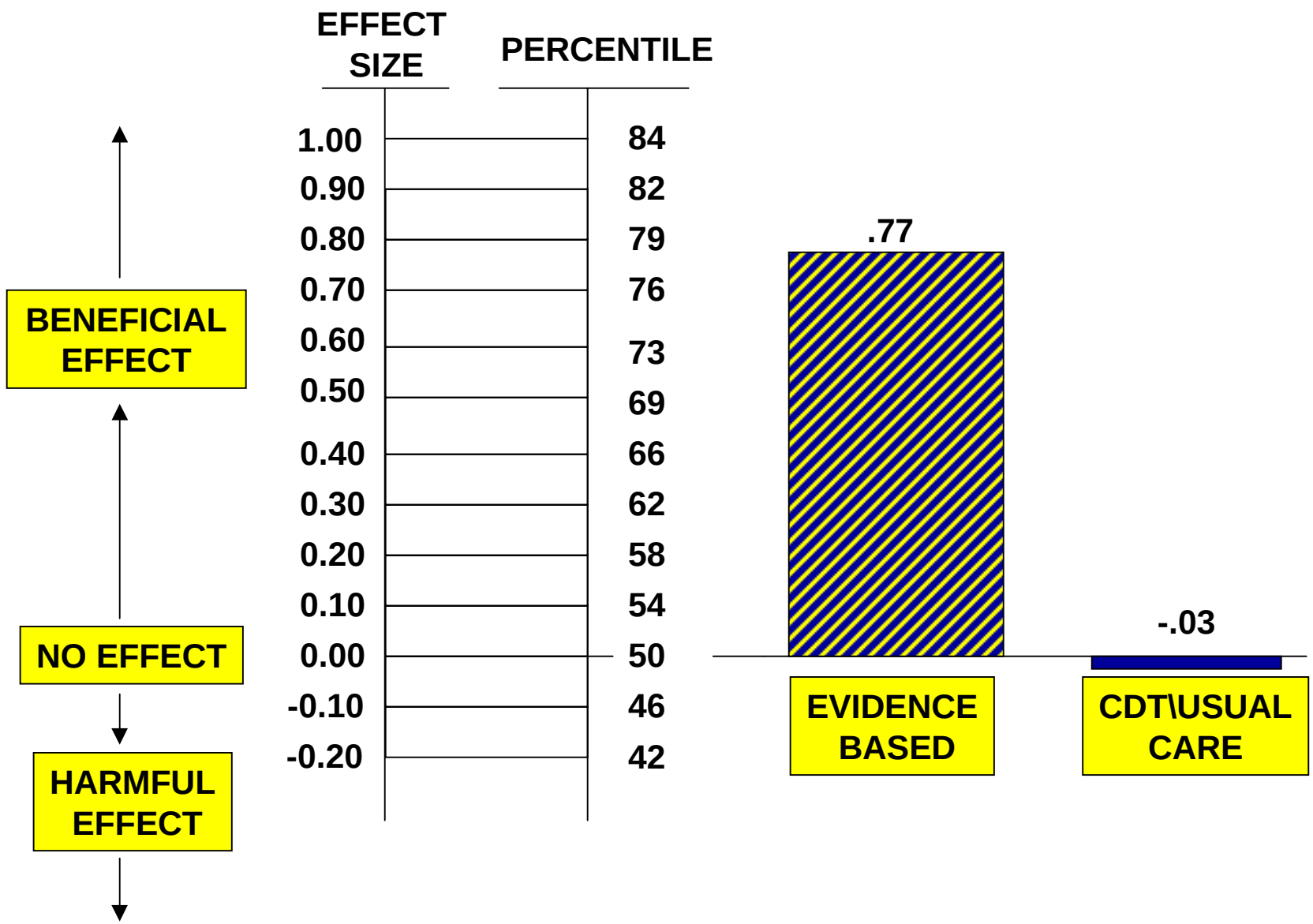
EVIDENCE-BASED TREATMENTS

- "MEDIUM" TO "LARGE" EFFECTS
- LARGER EFFECTS THAN MEDICAL
- SPECIFIC TO TREATED PROBLEMS
- HOLDING POWER OVER TIME

CLINICALLY-DERIVED TX IN USUAL CARE

- INDIVIDUAL CARE: WEAK EFFECTS
- SYSTEMS OF CARE: WEAK EFFECTS

EVIDENCE-BASED TREATMENTS VS. CDT IN USUAL CARE



CRITERIA FOR ESTs\EBTS "WELL ESTABLISHED"

I. AT LEAST 2 GOOD GROUP-DESIGN STUDIES

   A. > PILL, PLACEBO, ALT TX
   B. = ESTABLISHED TX [30/GRP]

OR

II. LARGE SERIES (N >9) OF SINGLE- CASE STUDIES

   A. GOOD EXP DESIGN
   B. > ALT TX

III. STUDIES MUST USE MANUALS

IV. NOTE CLIENT CHARACTERISTICS

V. 2 DIFFERENT TEAMS

CRITERIA FOR ESTS\EBTs: "PROBABLY EFFICACIOUS"

I. 2 STUDIES TX > WAITLIST

OR

II. 1 OR MORE STUDIES "WELL-ESTABLISHED" BUT BY SAME INVESTIGATORS

OR

III. SMALL SERIES (N > 2) OF SINGLE-CASE STUDIES -- "WELL-ESTABLISHED"

TREATMENTS FOR HABIT PROBLEMS

WELL-ESTABLISHED

BEHAVIOR MODIFICATION FOR ENURESIS..... 4 STUDIES

PROBABLY EFFICACIOUS

BEHAVIOR MODIFICATION OF ENCOPRESIS..... 2 STUDIES

FAMILY-ORIENTED BEHAV THERAPY FOR OBESITY..... 3 STUDIES

Treatments for Fear and Phobias

Well-Established

Participant Modeling…….. 5 Studies

Reinforced Practice……..4 Studies

Probably Efficacious

Classical: Imaginal Desensitization……..4 Studies

In Vivo Desensitization……. 2 Studies

Modeling: Live Modeling…….. 2 Studies

Filmed Modeling…….. 2 Studies

Cognitive-Behavioral: CBT…….. 2 Studies

Treatments for Anxiety Disorders

Well-Established

None

Probably Efficacious

Cognitive-Behavioral Therapy…….. 3 Studies

Cognitive Behavioral + Family Therapy.. 2 Studies

COPING CAT FEAR STEPS

F FEELING FRIGHTENED?

E EXPECTING BAD THINGS TO HAPPEN?

A ATTITUDES & ACTIONS THAT CAN HELP

R RATE & REWARD

Treatments for Depression

Well-Established

None

Probably Efficacious

Cognitive-Behavioral for Children……. 4 Studies

Cognitive-Behavioral for Adolescents …..5 Studies

COGNITIVE BEHAVIORAL THERAPY FOR YOUTH DEPRESSION

1. ACTIVITY SELECTION
2. RELAXATION TRAINING
3. GOAL-SETTING/SKILL DEVELOPMENT
4. PROBLEM-SOLVING TRAINING
5. IDENTIFYING & ALTERING DEPRESSOGENIC THOUGHTS

STIMULANT MEDS VS. PSYCHOTHERAPY

THE DEBATE

Treatments for ADHD

Well-Established

Behavioral Parent Training…… 11 Studies

Behavior Mod in Classrooms…… 2 Studies

[Single-Subject & Within-Group…… 21 Studies]

Probably Efficacious

None

Anastopoulous et al. : Summary of Parent Training Program for Children with ADHD

Session	Therapeutic content
1	Overview of ADHD
2	Discussion of parent-child conflict; review of management principles
3	Using positive attending and ignoring during special play time
4	Using positive attending and ignoring to promote compliance with simple requests; discussion of how to give command more effectively
5	Setting up comprehensive, reward-oriented home token/point system
6	Using response cost for minor non-compliance and rule violations
7	Using time out from reinforcement for more serious rule violations
8	How to handle child behavior problems in public
9	How to handle future problems; working cooperatively with personnel (e.g., setting up daily report card systems)

Pelham et. al.: Typical Daily Schedule for the ADHD Treatment Program

Time	Activity
7:30-8:00	Arrival
8:00-8:15	Social skills training
8:15-9:00	Soccer skills training
9:00-9:15	Transition
9:15-10:15	Soccer game
10:15-10:30	Transition
10:30-11:30	Academic learning center
11:30-11:45	Transition
11:45-12:00	Lunch
12:00-12:15	Recess
12:15-1:15	Softball game
1:15-1:30	Transition
1:30-2:15	Art learning center
2:15-2:30	Cooperative task
2:30-2:45	Transition
2:45-3:45	Swimming
3:45-4:00	Transition
4:00-5:00	Computer learning center
5:00-5:30	Departure

Treatments for Conduct Problems and Disorders

Well-Established

- Behavioral Parent Training…….. 4 Studies
- Video Modeling Parent……..... 3 Studies

Probably Efficacious

- Anger Control Training…… 4 Studies
- Delinquency Prevention……..... 2 Studies
- Multisystemic Therapy …….. 3 Studies
- Parent-Child Interaction - Preschool ……..….3 Studies
- Problem Solving Skills Training ……3 Studies

PARENT - CHILD INTERACTION THERAPY: TREATMENT STEPS

1. **Therapist observes parent-child interactions, identifies problems, sets goals**

2. **Child-Directed Interaction sessions child leads play activity, parent follows child's lead, using praise, reflection, imitation, description, and enthusiasm (PRIDE)**

3. **Parent Directed Interaction sessions parent leads play activity, gives directives, set limits learns to use time-out for noncompliance learns to reward compliance and appropriate behavior.**

4. **Therapist observes parent-child interactions to assess parent learning, child behavior**

VIDEO PARENT TRAINING

BASIC: WEBER-STRATTON

I. PLAY AND INTERACTION WITH CHILD

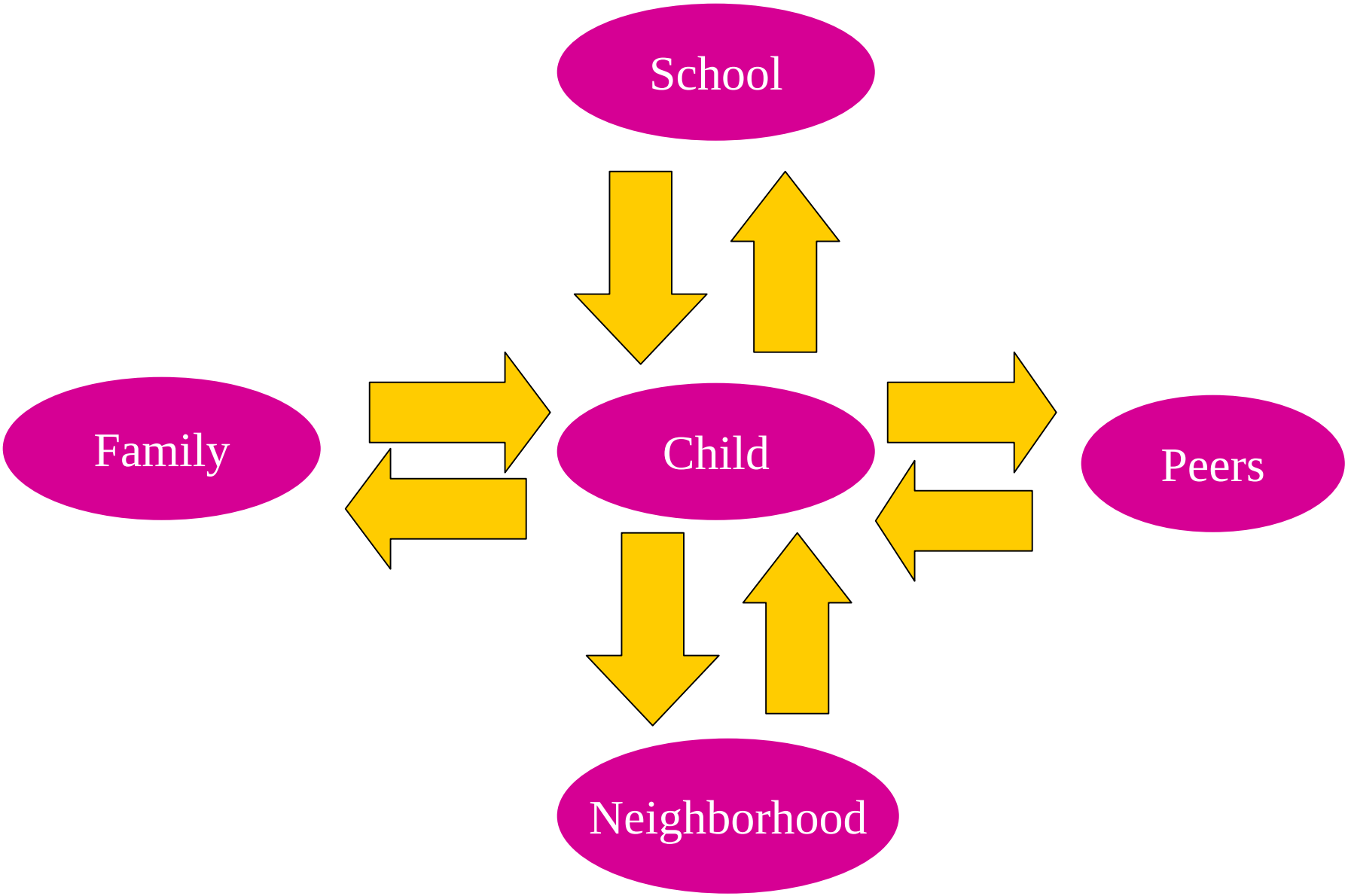
II. PRAISE & REWARDS

III. SETTING LIMITS; NONCOMPLIANCE

IV. HANDLING MISBEHAVIOR

- Avoiding, ignoring
- Time out, other penalties
- Preventing misbehavior

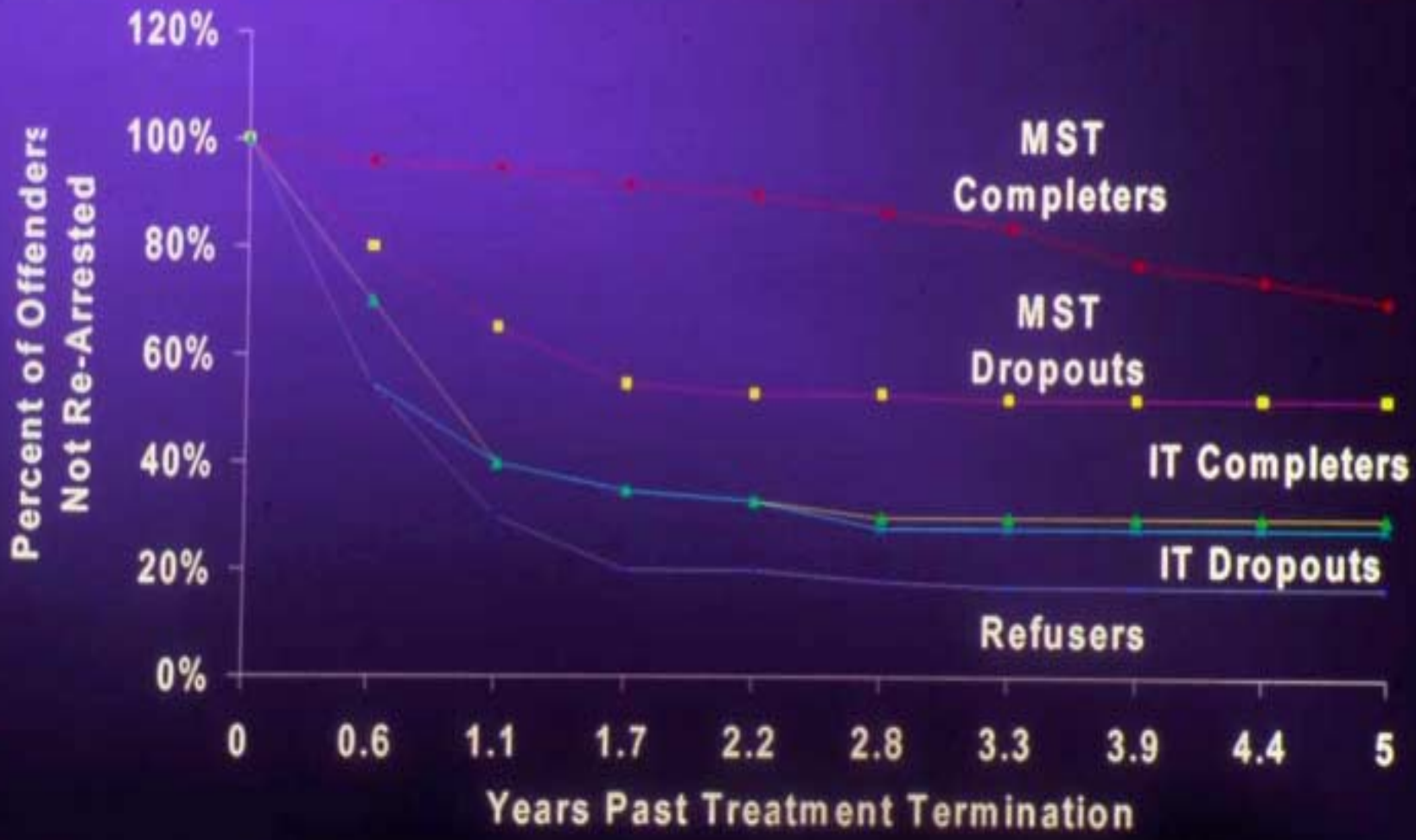
Ecological Model: Multisystemic Therapy



Needs of Violent and Chronic Juvenile Offenders and Their Multiproblem Families: Multisystemic Therapy

- Improve parental discipline practices
- Increase family affection
- Decrease association with deviant peers
- Increase association with prosocial peers
- Improve school/prosocial performances
- Engage in positive recreational activities
- Improve family-community relations
- Empower family to solve future difficulties

Missouri Delinquency Project

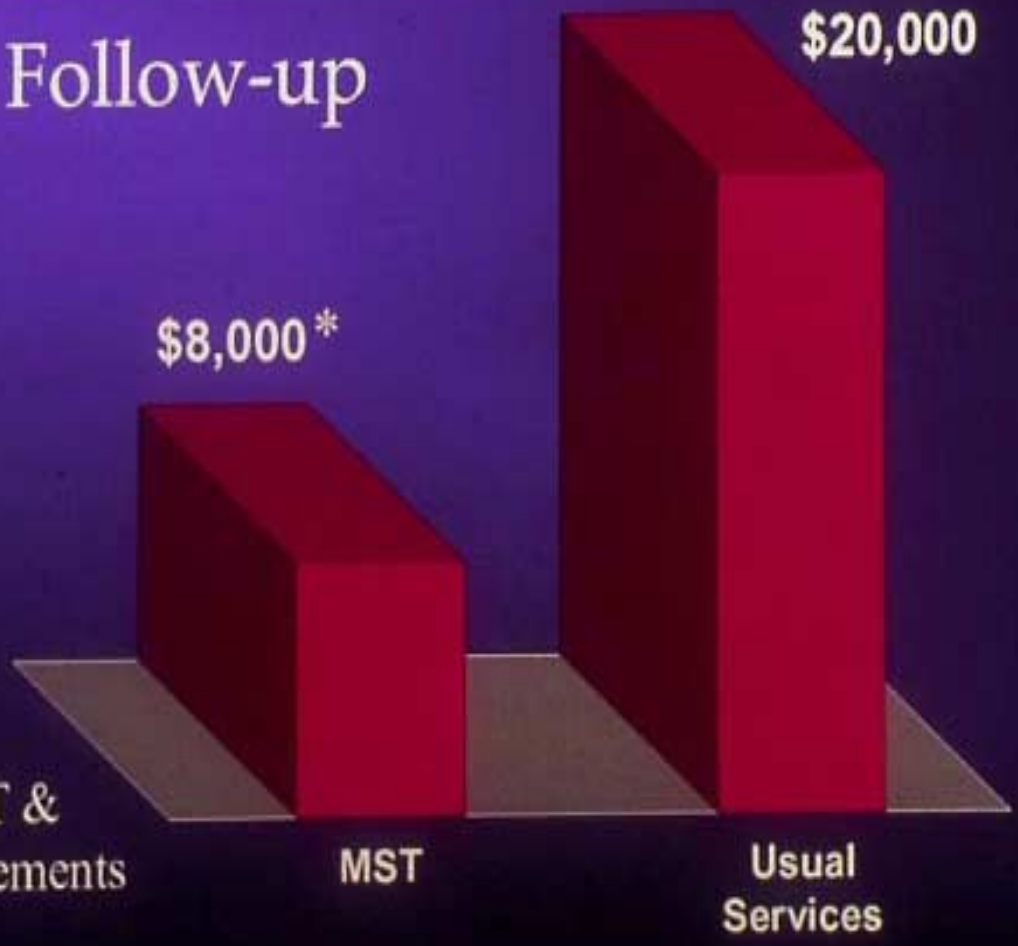


Multisystemic Therapy

05/99

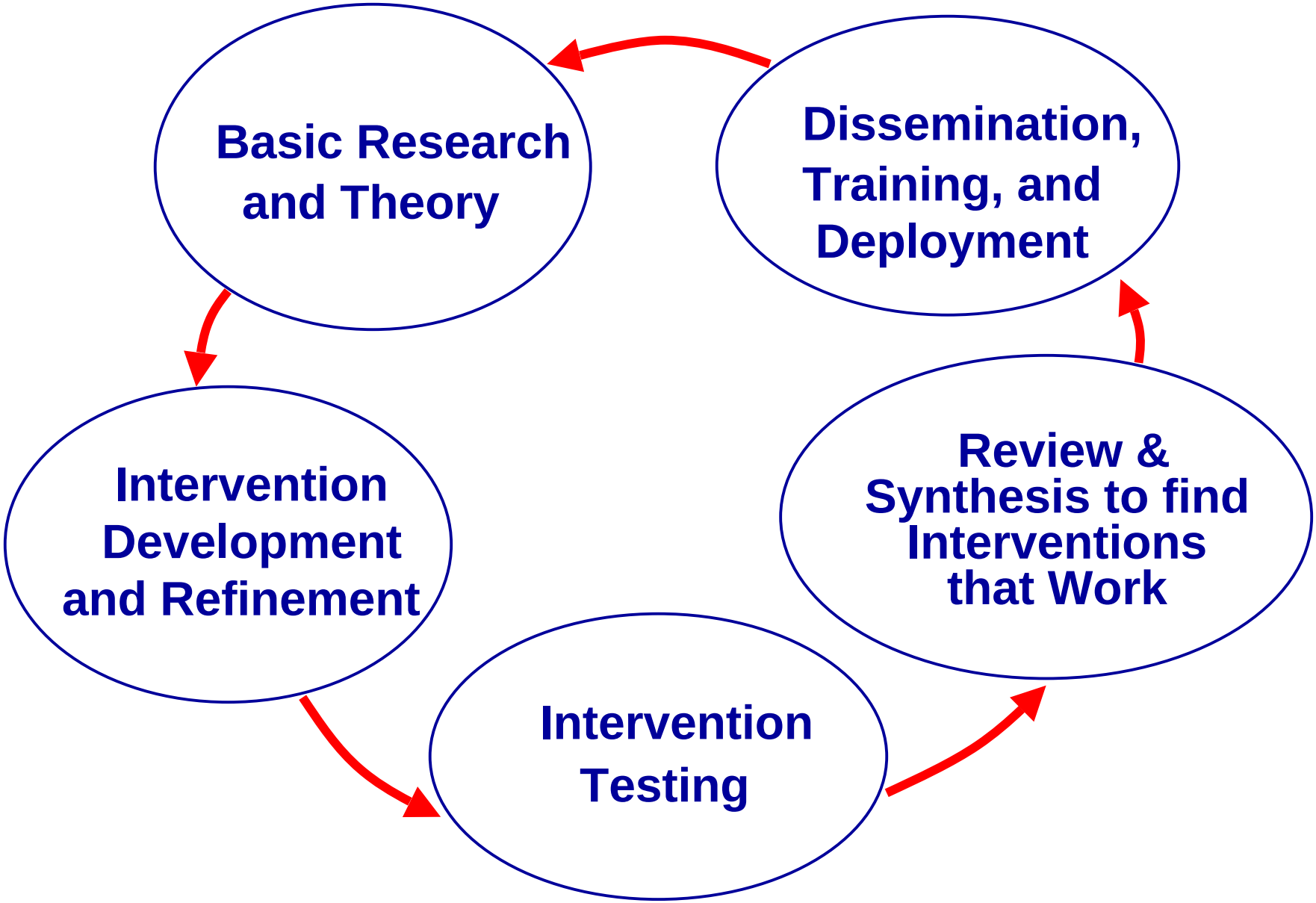
Cost of Services

- 59 Week Follow-up

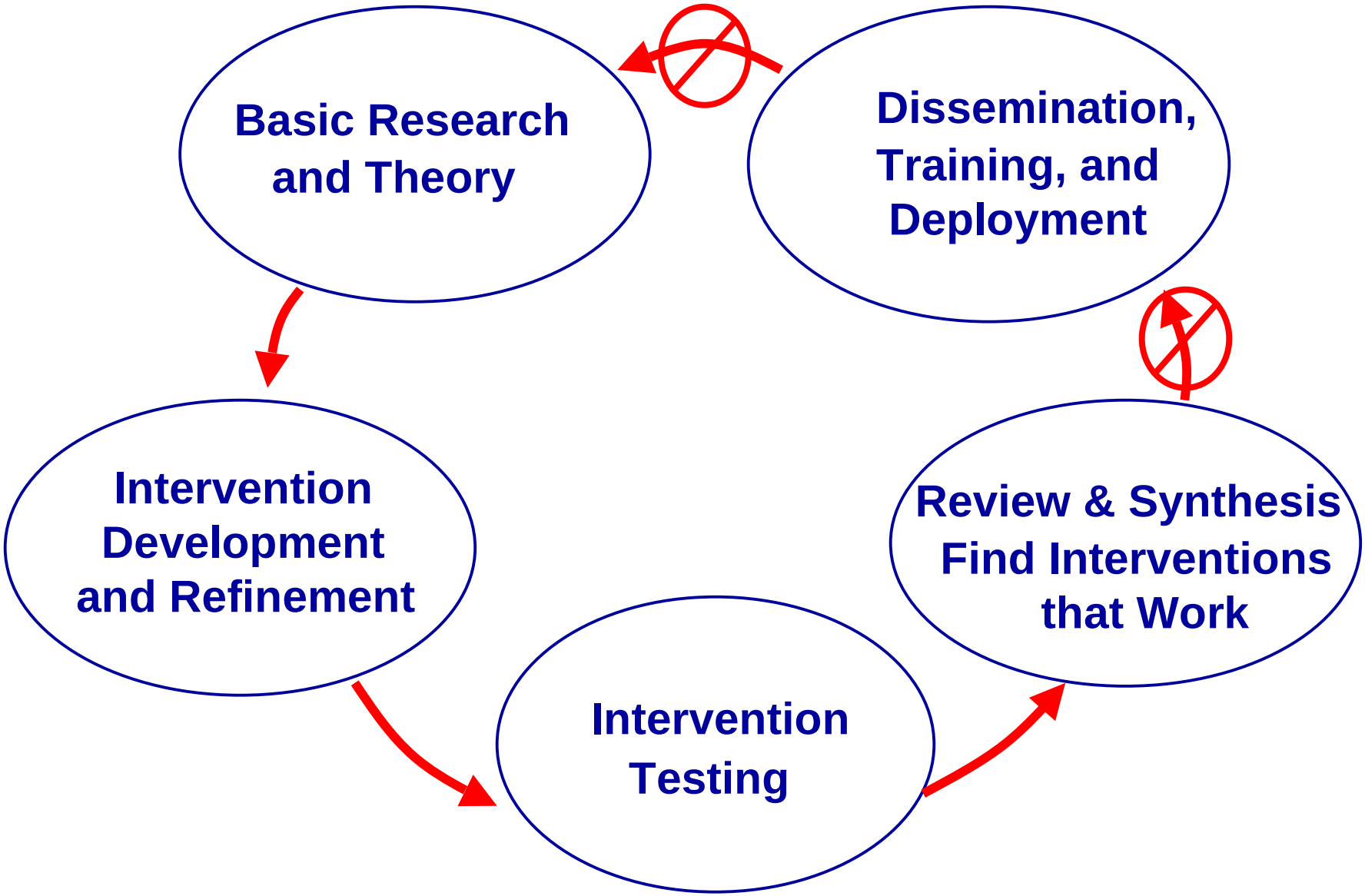


* $4,000 for MST &
$4,000 for Placements

Most Common Treatment Targets?	Are There Scientifically Supported Treatments?	Used in Most Clinical Practice?
Aggression, Delinquency	Yes	No
Attention Deficit/ Hyperactivity (ADD/ADHD)	Yes	No
Depression	Yes	No
Irrational Fears, Anxiety Disorders	Yes	No
Other problems: Pain coping, habits, bet wetting	Yes	No



Information Flow From Science to Intervention, and Back



Information Flow From Science to Intervention, and Back

EVIDENCE-BASED TREATMENTS (EBTs): WHY NOT USED IN PRACTICE?

1. Natural time course
2. No "FDA for Psychosocial treatments"
3. Little Public Awareness of EBTs (No “CBT pens”)
4. Training Needed for Practitioners (vs. Pills)
5. Few Incentives to Change Current Practices
6. Some/Most EBTs May Need Tailoring for Clinic Use

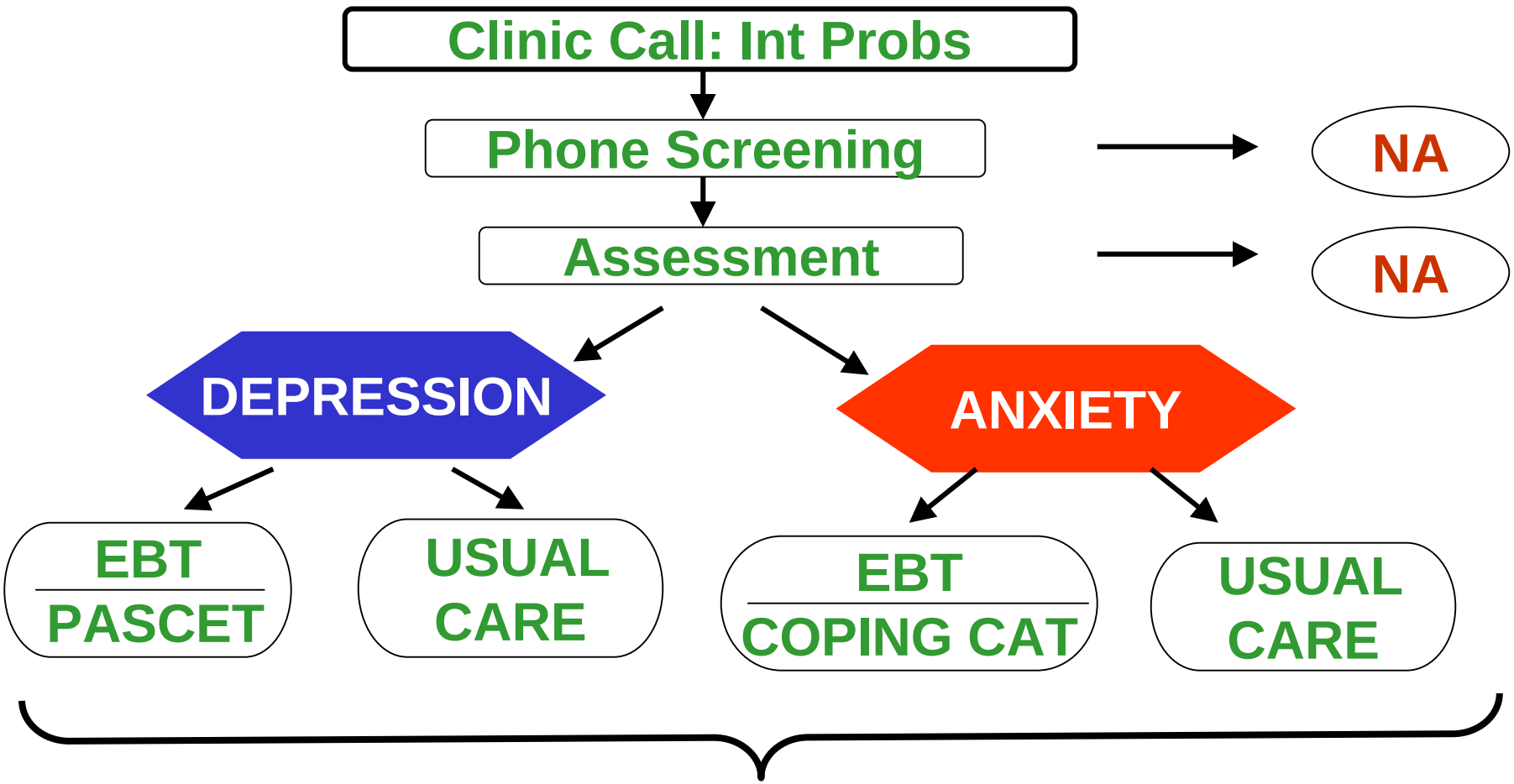
PRACTIONERS ON EBTs

- Made for single-problem/dx; won't fit complex cases
- Tested in univ labs, w/ analog cases;not relevant to real-world practice
- Make therapists technicians, not caring, empathic human beings
- Manuals use rigid steps; can't adjust to fit change, new info.
- Manuals produce "scripted", non-authentic interactions w/clients.
- Manuals undermine therapeutic relationship.
- Manuals rule out clinician judgment, innovation.
- Learning and using manuals is time-consuming and expensive

•May not apply equally to all, but an element of truth here...

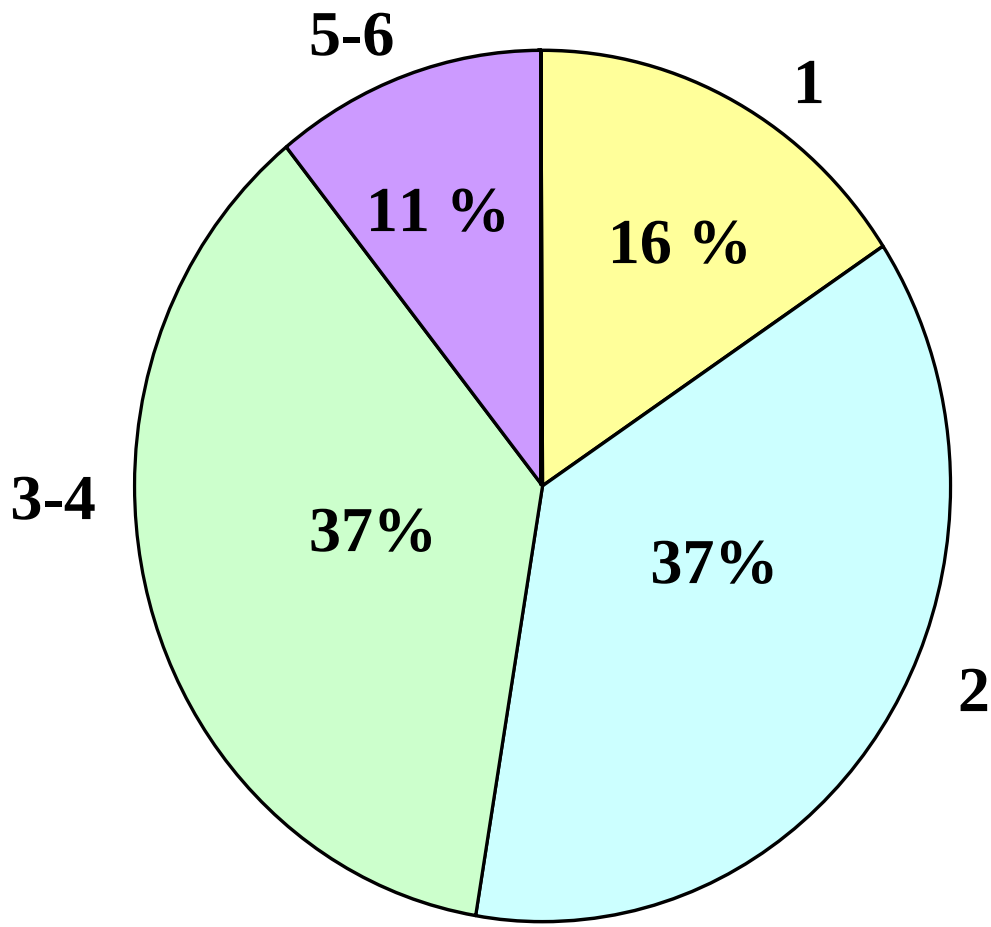
RESEARCH THERAPY	CLINIC THERAPY
RECRUITED CASES [less severe, study volunteers]	CLINIC-REFERRED [more severe, some coerced]
HOMOGENEOUS	HETEROGENEOUS
NARROW FOCUS	MULTI-PROBLEM FOCUS
LAB OR SCHOOL SETTINGS	CLINICS OR HOSPITALS
RESEARCHERS/ASSISTANTS	CLINICIANS
SMALL CASELOADS	LARGE CASELOADS
PRE-THERAPY PREPARATION	LITTLE PREPARATION
FOCUSED TREAT-MENT METHOD	MULTI-METHOD, ECLECTIC
BEHAVIORAL	NONBEHAVIORAL
PRE-PLANNED, HIGHLY STRUCTURED [manual, close monitoring of therapists]	FLEXIBLE, ADJUSTABLE

YADS Design & Steps



1. Treatment Phase
2. Post - tx Assessment . . . . . Immediate.
3. Follow-up Assessment . . . . . 15 mo.
4. Follow-up Assessment . . . . . 24 mo.

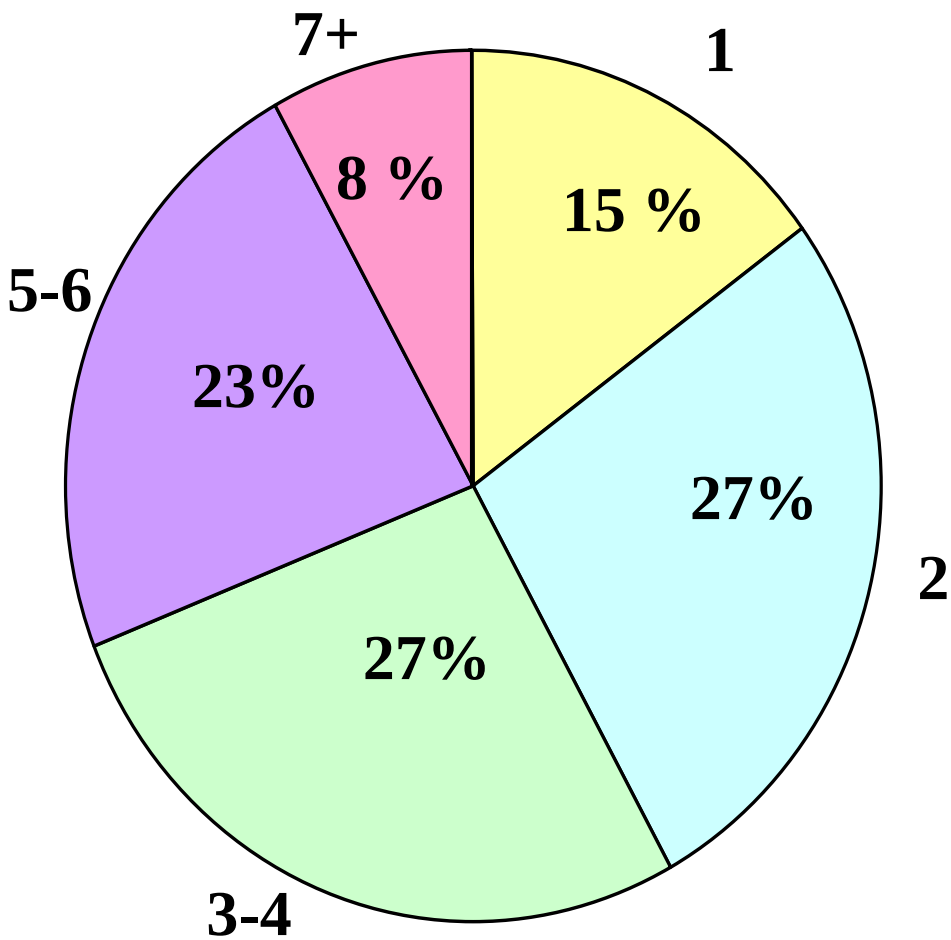
DIAGNOSES: ANXIOUS YOUTH



MEAN: 2.7

+ ODD, CD, ADHD: 68%

DIAGNOSES: DEPRESSED YOUTH



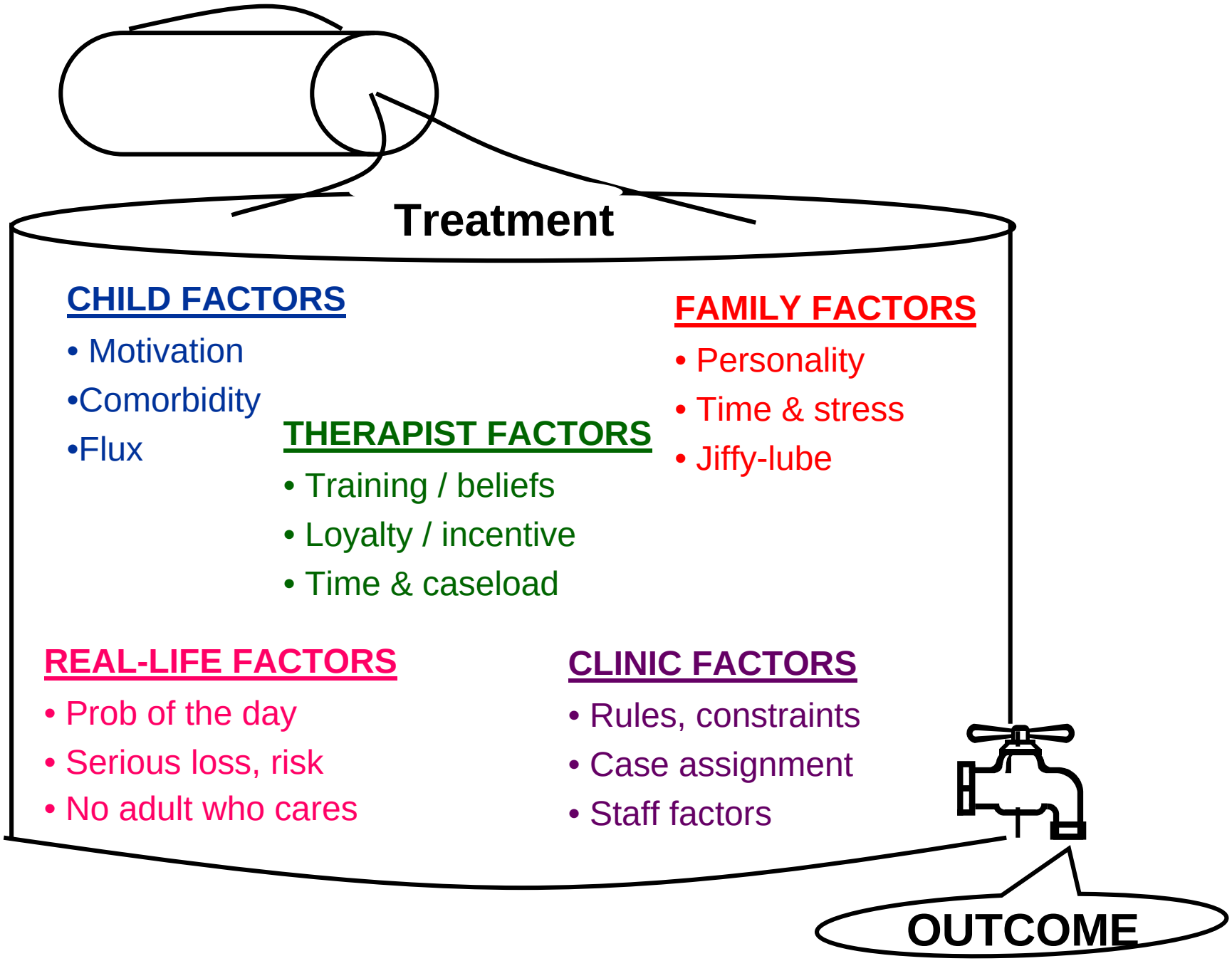
MEAN: 3.4

+ ODD, CD, ADHD: 81%

….and the disruptive behavior is most often the main reason for referral.

Target Disorders in an Outpatient Sample (N-436) of Community Clinics

DISORDER	% With That Disorder	% With ONLY that Disorder	% With That Dis + Others
Depression	23%	3%	20%
Anxiety	41%	12%	29%
CD/ODD	47%	11%	36%
ADHD	37%	7%	30%


Treatment
CHILD FACTORS
• Motivation
•Comorbidity
•Flux
FAMILY FACTORS
• Personality
• Time & stress
• Jiffy-lube
THERAPIST FACTORS
• Training / beliefs
• Loyalty / incentive
• Time & caseload
REAL-LIFE FACTORS
• Prob of the day
• Serious loss, risk
• No adult who cares
CLINIC FACTORS
• Rules, constraints
• Case assignment
• Staff factors
OUTCOME

Given this state of affairs…..

1. What's a researcher to do?
2. What's a clinician to do?

…….First, the researcher….

TREATMENT DEVELOPMENT

TWO MODELS

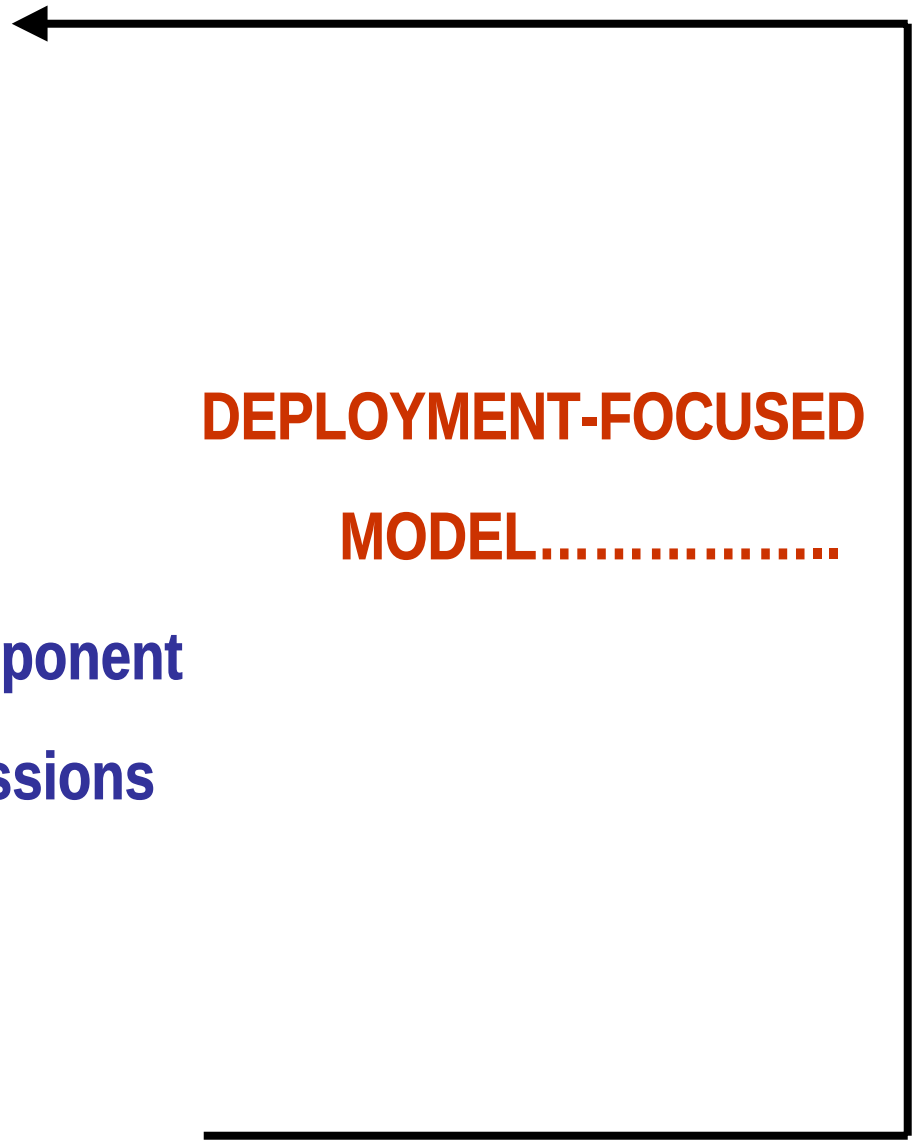
* MEDICAL-PHARMACEUTICAL

  - FDA
  - CANCER
  - PSYCHOSOCIAL

* DEPLOYMENT-FOCUSED

TRADITIONAL MP MODEL & DFM PROPOSAL

- Efficacy 1
- Efficacy 2
- Efficacy N
- Dismantling
- Moderators
- Add-ons
  - -- Family component
  - -- Booster sessions
  - -- Etc.
- Mediators
- [Effectiveness]



DEPLOYMENT-FOCUSED MODEL……

DEPLOYMENT-FOCUSED TREATMENT DEVELOPMENT MODEL

1. PROTOCOL/MANUAL
2. EFFICACY TEST
3. FIELD CASES
4. EFFECTIVENESS I
5. EFFECTIVENESS II
6. STAYING POWER

- Components
- Moderators
- Mediators
- Cost/benefit
- System factors
- Fit Issues

CLINIC-BASED TREATMENT DEVELOPMENT MODEL: GOALS

1. **Treatments that Fit into Practice.**
   Treatments that fit smoothly into clinical practice, with referred individuals treated in clinic settings by practictioners.

2. **Effectiveness Evidence.**
   Evidence on treatment outcome in actual clinical practice, the data practitioners most need to assess treatment utility for their settings.

3. **Externally Valid Evidence on Necessary & Sufficient Components, Moderators, & Mediators.**
   Externally valid evidence on the effective ingredients, boundary conditions, and causal/change processes associated with treatment effects.

7 Habits of Highly Effective People

Habit #2

And what's a clinician to do?

- **Capitalize on the strengths of EBTs**
  - Tested and shown to work
  - Clear documentation of procedures
  - Training programs, materials, aids available
  - [The perfect can be enemy of the good.]
- **Find training, recognizing need to adapt to your setting & clients** [JW: note COWs]
- **(?)Build skills in versatile**

Finding Evidence-Based Youth Treatments: On the Web

- www.effectivechildtherapy.com
- www.childpsychotherapy.org
- www.psychotherapyforkids.com
- www.effectivetherapyforkids.com
- and see……..
  www.clinicalchildpsychology.com

6 Habits of Highly Effective Interventions

- Skill focus, goals, agenda
- Role play, in vivo, homework to hone skills
- Problem solving training (e.g., STEPS)
- Relaxation training, to calm & focus
- Identify & alter maladaptive cognitions
- Parent training & environmental

Intriguing Issues

- **Efficacy Transfer Model vs. Deployment Focused Model?**
- **Evidence-based treatments vs. Evidence-based practices?**
- **Evidence-based practice vs. practice-based evidence?**
- **Change treatments to fit practice conditions, or vice versa?**